FIG. 1A

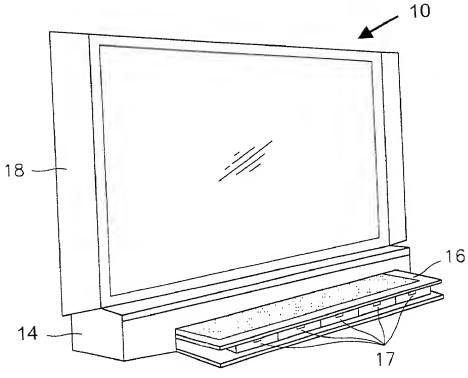


FIG. 1B

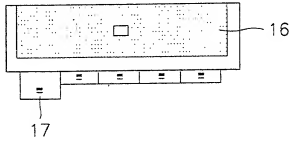


FIG. 1C

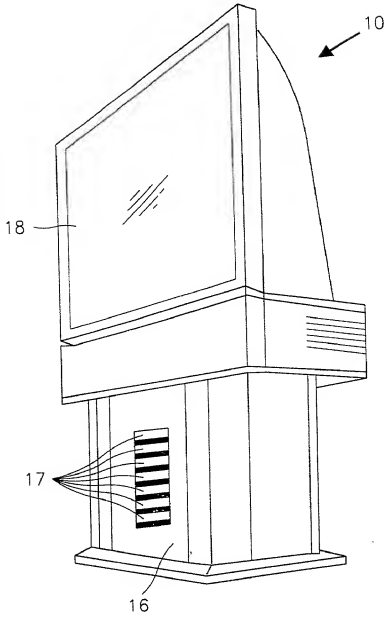


FIG. 2

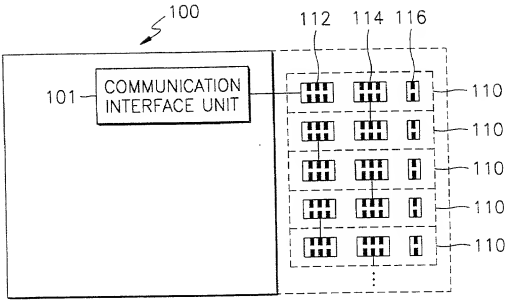
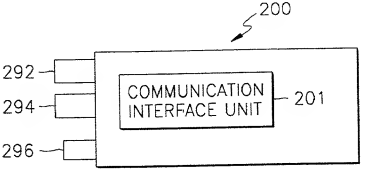
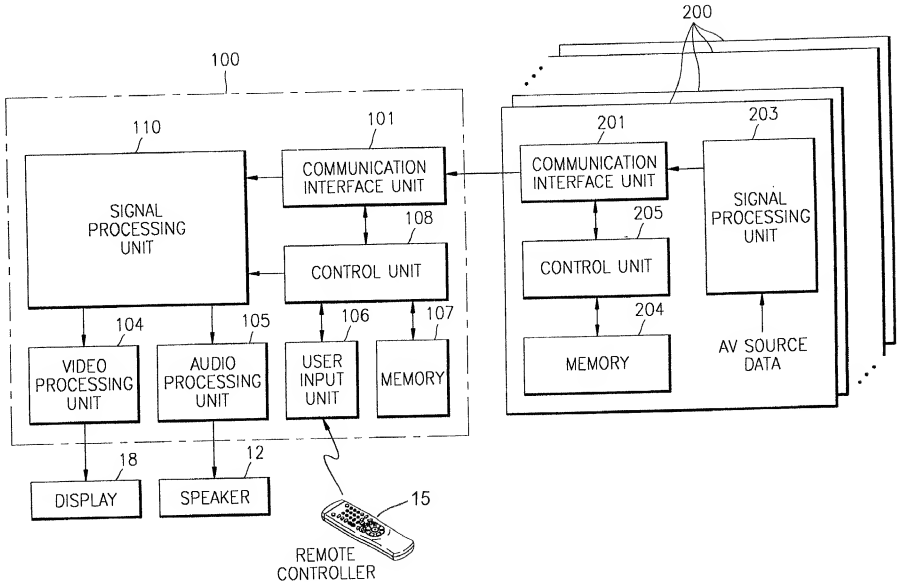

100
112
114
116
101
COMMUNICATION INTERFACE UNIT
110
110
110
110
110

FIG. 3


200
292
294
296
COMMUNICATION INTERFACE UNIT
201

T06T60'T0ES566D

FIG. 4



T06T60' T0ES5660

FIG. 5

<table>
<tr><td></td><td>OSI
REF MODEL</td><td>TCP/IP</td><td>USER-
CONTROL</td><td>VESA-
HNC</td><td>N/W
CONF</td><td>INTER-DEVICE
CONTROL</td><td>A/V DATA
FLOW</td><td>NETWORK
INTERFACE</td></tr>
<tr><td>7</td><td>APPLICATION</td><td rowspan="3">APPLICATION</td><td>GUI</td><td></td><td>NET.INFO</td><td>CMD CODE</td><td>AUDIO,
VIDEO, DATA</td><td>GATEWAY</td></tr>
<tr><td>6</td><td>PRESENTATION</td><td rowspan="2">HTTP</td><td rowspan="3">VESA-HN
CONTROL
PROTOCOL
(RESERVED)</td><td rowspan="2">DHCP</td><td rowspan="2">IEC61883
FCP</td><td rowspan="3">TRANSPORT
STREAM COPY
PROTECTION
IEC61883-
CMP</td><td rowspan="3"></td></tr>
<tr><td>5</td><td>SESSION</td></tr>
<tr><td>4</td><td>TRANSPORT</td><td>TRANSPORT</td><td>TCP</td><td>UDP</td><td></td></tr>
<tr><td>3</td><td>NETWORK</td><td>INTERNET</td><td colspan="4">IP AND ARP</td><td></td><td>ROUTER</td></tr>
<tr><td>2</td><td>DATA LINK</td><td rowspan="2">NETWORK
INTERFACE</td><td colspan="4" rowspan="2">IEEE 1394(ASYNCH),
GENERAL NETWORK</td><td rowspan="2">IEEE 1394
(ISOCH)</td><td>BRIDGE</td></tr>
<tr><td>1</td><td>PHYSICAL</td><td>REPEATER</td></tr>
</table>

FIG. 6

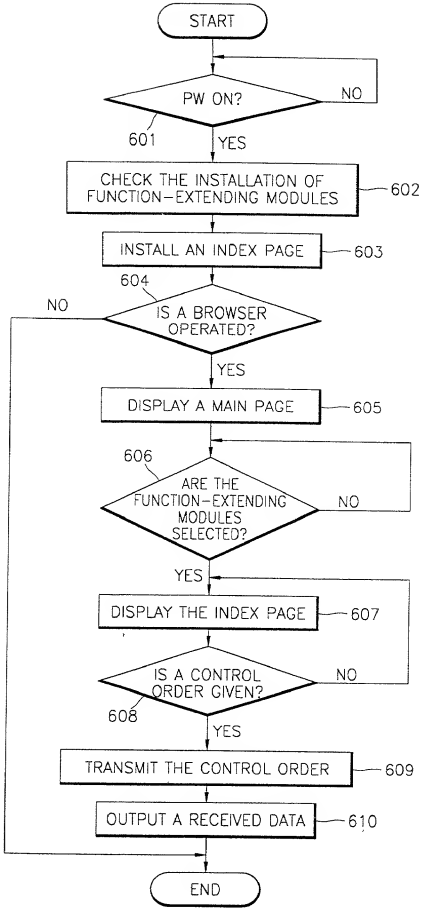

START
PW ON?
NO
601
YES
CHECK THE INSTALLATION OF FUNCTION-EXTENDING MODULES
602
INSTALL AN INDEX PAGE
603
604
NO
IS A BROWSER OPERATED?
YES
DISPLAY A MAIN PAGE
605
606
ARE THE FUNCTION-EXTENDING MODULES SELECTED?
NO
YES
DISPLAY THE INDEX PAGE
607
IS A CONTROL ORDER GIVEN?
NO
608
YES
TRANSMIT THE CONTROL ORDER
609
OUTPUT A RECEIVED DATA
610
END

FIG. 7

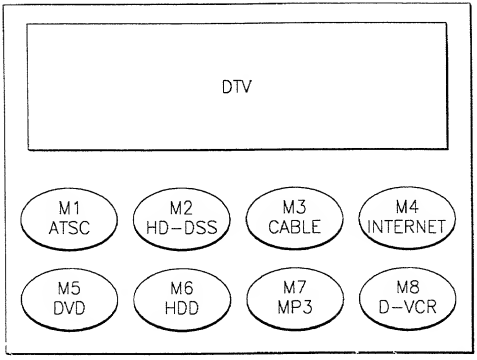

DTV
M1
ATSC
M2
HD-DSS
M3
CABLE
M4
INTERNET
M5
DVD
M6
HDD
M7
MP3
M8
D-VCR

FIG. 8

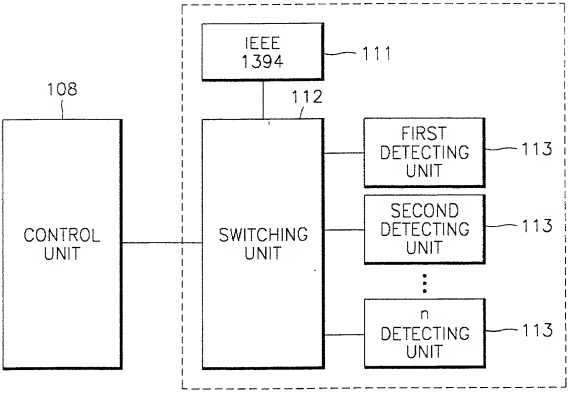

IEEE
1394
111
108
112
CONTROL
UNIT
SWITCHING
UNIT
FIRST
DETECTING
UNIT
113
SECOND
DETECTING
UNIT
113
n
DETECTING
UNIT
113

FIG. 9

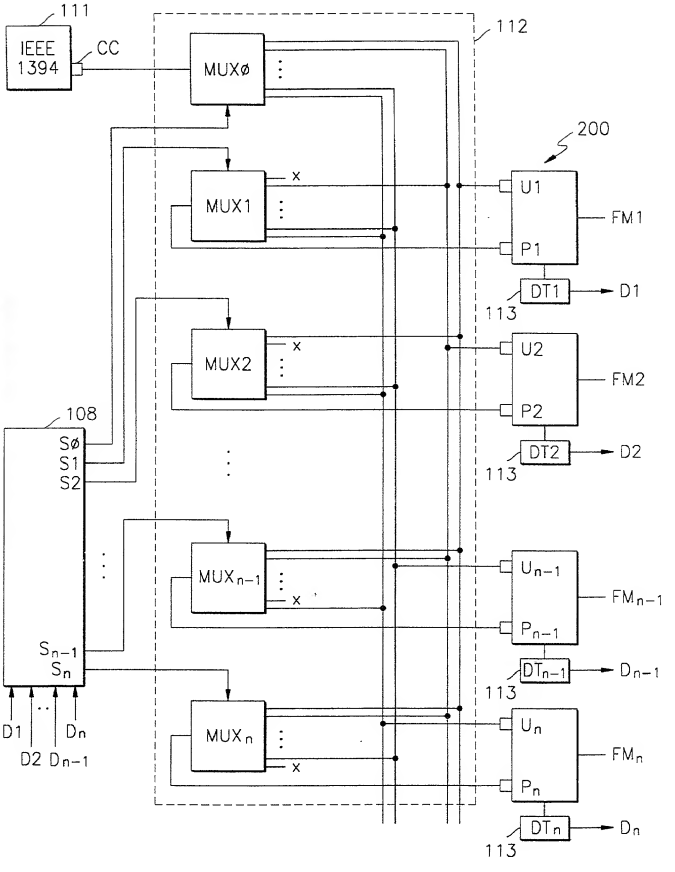
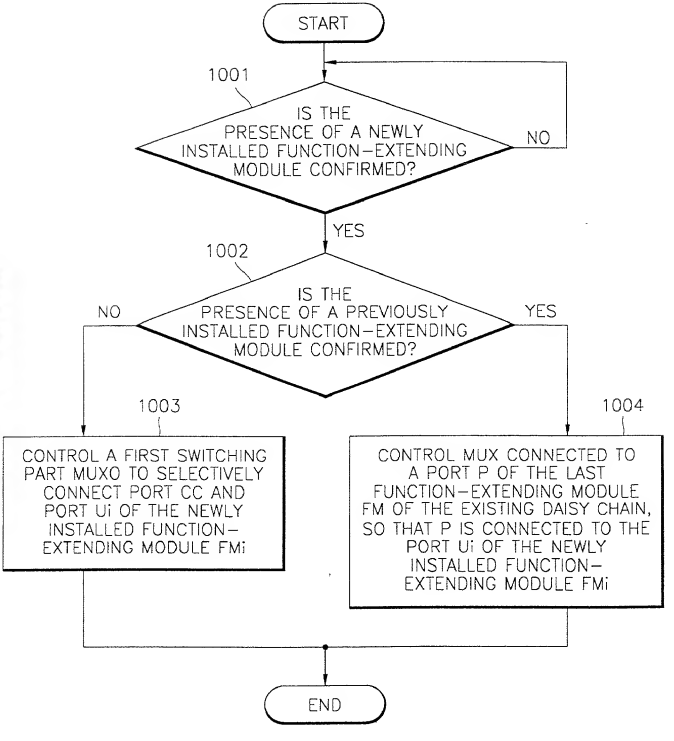

111
IEEE 1394
CC
112
MUXø
200
MUX1
x
U1
P1
FM1
DT1
D1
113
MUX2
U2
P2
FM2
DT2
D2
108
Sø
S1
S2
MUXn-1
Un-1
Pn-1
FMn-1
DTn-1
Dn-1
Sn-1
Sn
D1
D2
Dn-1
Dn
MUXn
Un
Pn
FMn
DTn
Dn

FIG. 10


START
1001
IS THE PRESENCE OF A NEWLY INSTALLED FUNCTION-EXTENDING MODULE CONFIRMED?
NO
YES
1002
IS THE PRESENCE OF A PREVIOUSLY INSTALLED FUNCTION-EXTENDING MODULE CONFIRMED?
NO
YES
1003
CONTROL A FIRST SWITCHING PART MUXO TO SELECTIVELY CONNECT PORT CC AND PORT Ui OF THE NEWLY INSTALLED FUNCTION-EXTENDING MODULE FMi
1004
CONTROL MUX CONNECTED TO A PORT P OF THE LAST FUNCTION-EXTENDING MODULE FM OF THE EXISTING DAISY CHAIN, SO THAT P IS CONNECTED TO THE PORT Ui OF THE NEWLY INSTALLED FUNCTION-EXTENDING MODULE FMi
END